

## FIG. 1

INPUT SIGNAL

CONSTANT-ENVELOPE SIGNAL GENERATING SECTION 11

COMBINING SECTION 14

5 OUTPUT SIGNAL

## FIG. 3

INPUT SIGNAL  $S_i$ ,  $S_q$ 

CONSTANT-ENVELOPE SIGNAL IQ GENERATING SECTION 15

10 D/A CONVERTER 16A, 16B, 16C, 16D

PHASE SHIFTER

LOCAL OSCILLATOR

PHASE SHIFTER

COMBINING SECTION 14

15 OUTPUT SIGNAL

## FIG. 4, FIG. 7

INPUT SIGNAL  $S_i$ INPUT SIGNAL  $S_q$ 

20 CONSTANT-ENVELOPE SIGNAL GENERATING SECTION 101

PILOT SIGNAL GENERATING SECTION 102

AMPLITUDE ADJUSTMENT SECTION 119

PHASE ADJUSTMENT SECTION 120

CONTROL SECTION 115

25 D/A CONVERTER 106A

D/A CONVERTER 106B

A/D CONVERTER 118

LOCAL OSCILLATOR 109

FREQUENCY CONVERTER 116

COMBINER 113

5 FIG. 6A

AMPLITUDE

SECOND PILOT SIGNAL COMPONENT

FIRST PILOT SIGNAL COMPONENT

DESIRED SIGNAL COMPONENT

10 FREQUENCY

FIG. 6B

AMPLITUDE

FIRST PILOT SIGNAL COMPONENT

15 SECOND PILOT SIGNAL COMPONENT

DESIRED SIGNAL COMPONENT

FREQUENCY

FIG. 6C

20 AMPLITUDE

SECOND PILOT SIGNAL COMPONENT

FIRST PILOT SIGNAL COMPONENT

PASS FREQUENCY CHARACTERISTIC OF LPF 117 FOR PILOT SIGNAL

DETECTION USE

25 FREQUENCY

FIG. 8, FIG. 9

## AMPLITUDE

FIRST PILOT SIGNAL COMPONENT

SECOND PILOT SIGNAL COMPONENT

DESIRED SIGNAL COMPONENT

## 5 FREQUENCY

FIG. 10 (FIG. 4+)

FREQUENCY CHARACTERISTIC CORRECTION SECTION 301

CONTROL SECTION 303

## 10 PILOT SIGNAL GENERATING SECTION 304

FREQUENCY CONVERTER 305

A/D CONVERTER 307

FIG. 11

## 15 GAIN

DESIRED SIGNAL BAND

FREQUENCY

FIG. 12

## 20 PHASE

DESIRED SIGNAL BAND

FREQUENCY

FIG. 13

## 25 AMPLITUDE

LOWER SIDE FREQUENCY BAND

PILOT SIGNAL COMPONENT

UPPER SIDE FREQUENCY BAND

PILOT SIGNAL COMPONENT

DESIRED SIGNAL

FREQUENCY

5

FIG. 14

GAIN FREQUENCY CHARACTERISTIC #1

DESIRED SIGNAL BAND

GAIN FREQUENCY CHARACTERISTIC #2

10 FREQUENCY

FIG. 15

AMPLIFIER CIRCUIT 100

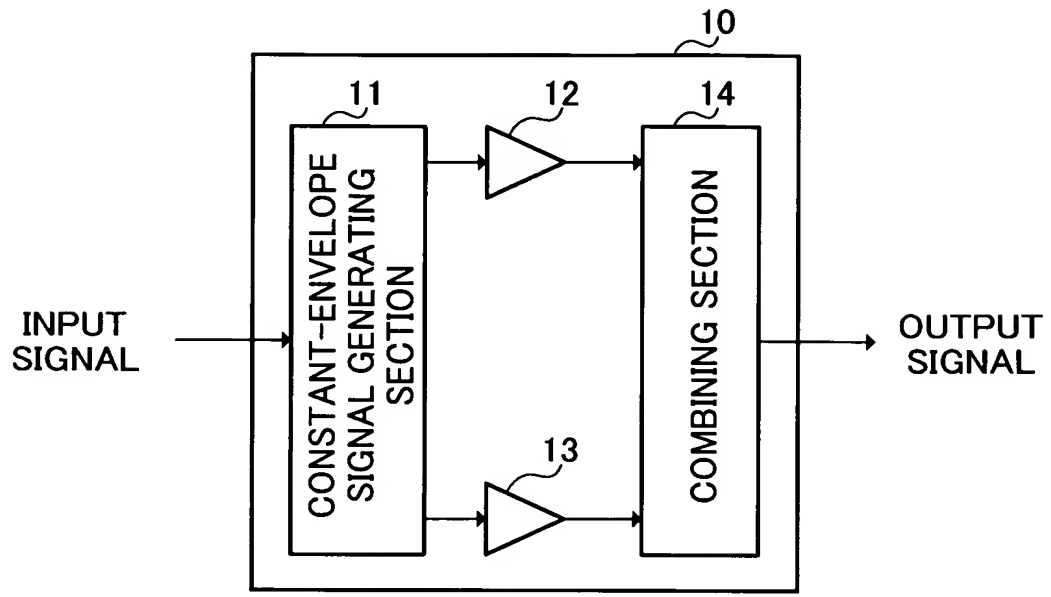
CONTROL SECTION 115

15 LOCAL OSCILLATOR 109

MODEM 404

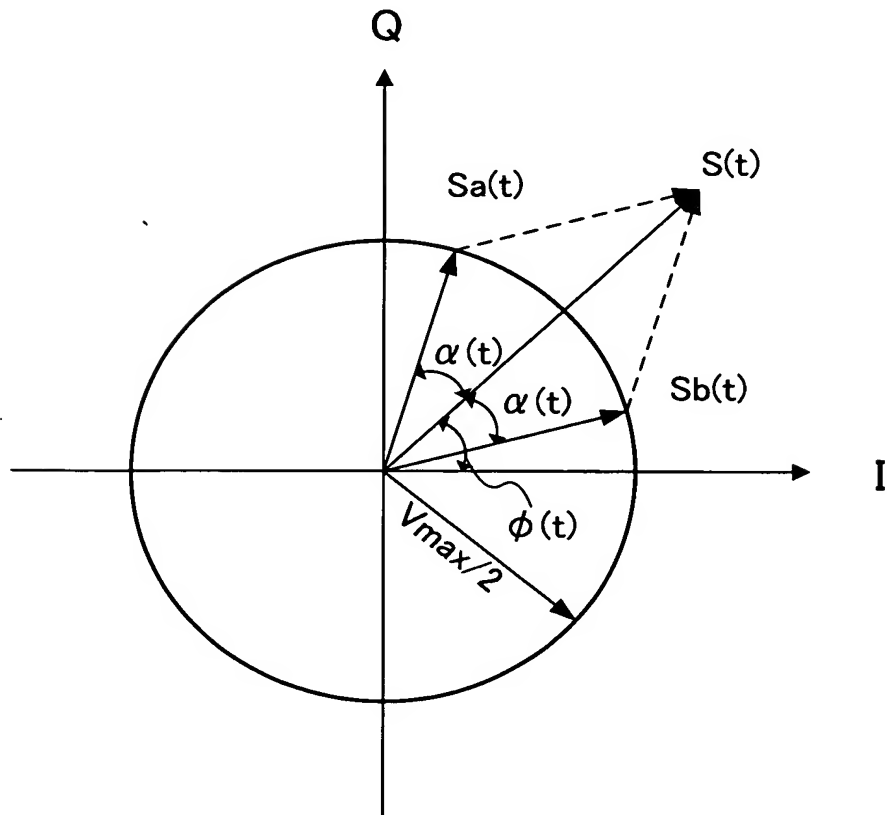
WIRELESS RECEIVER 403

ANTENNA DUPLEXER 402



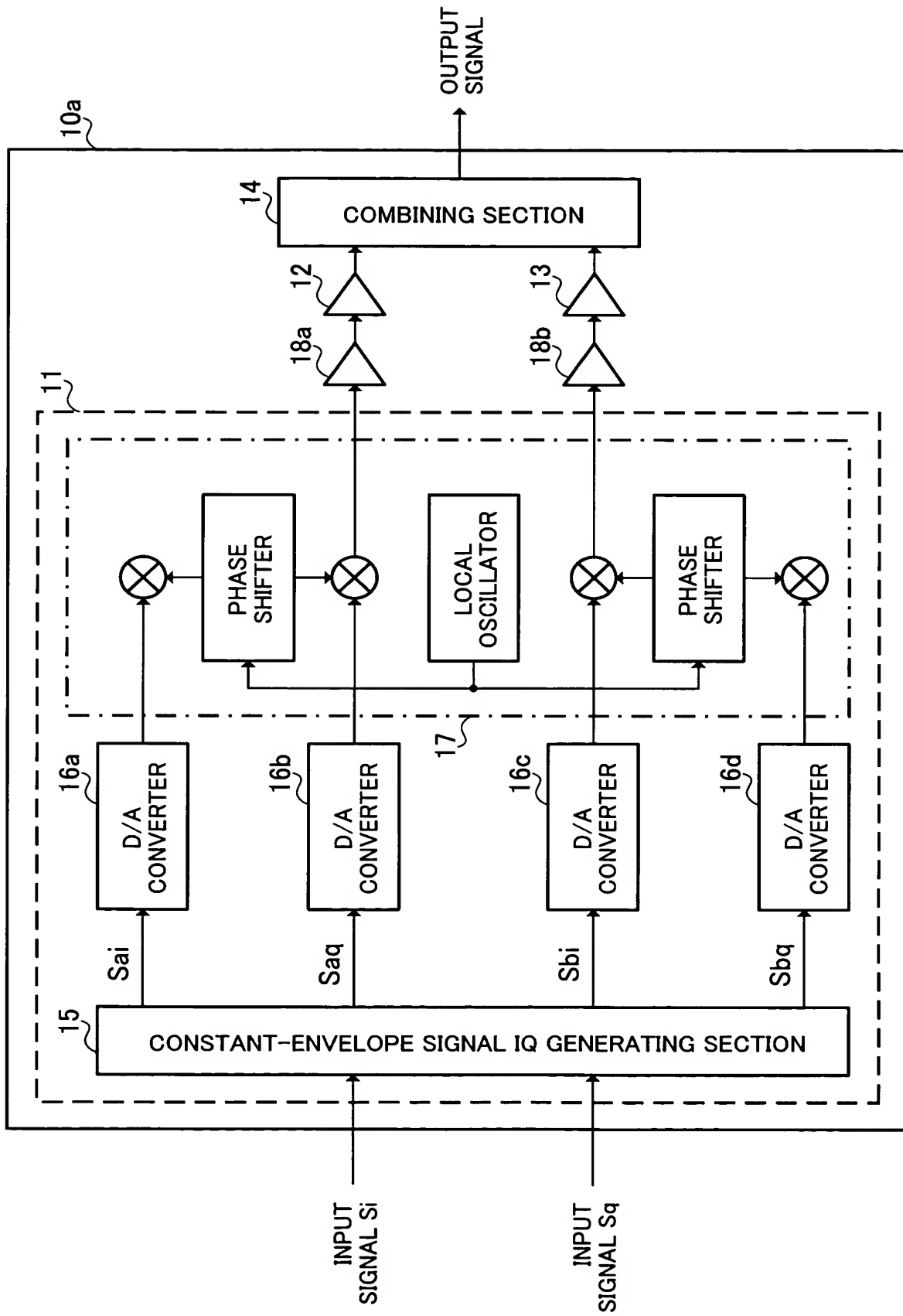
PRIOR ART

FIG.1



PRIOR ART

FIG.2



PRIOR ART  
FIG.3

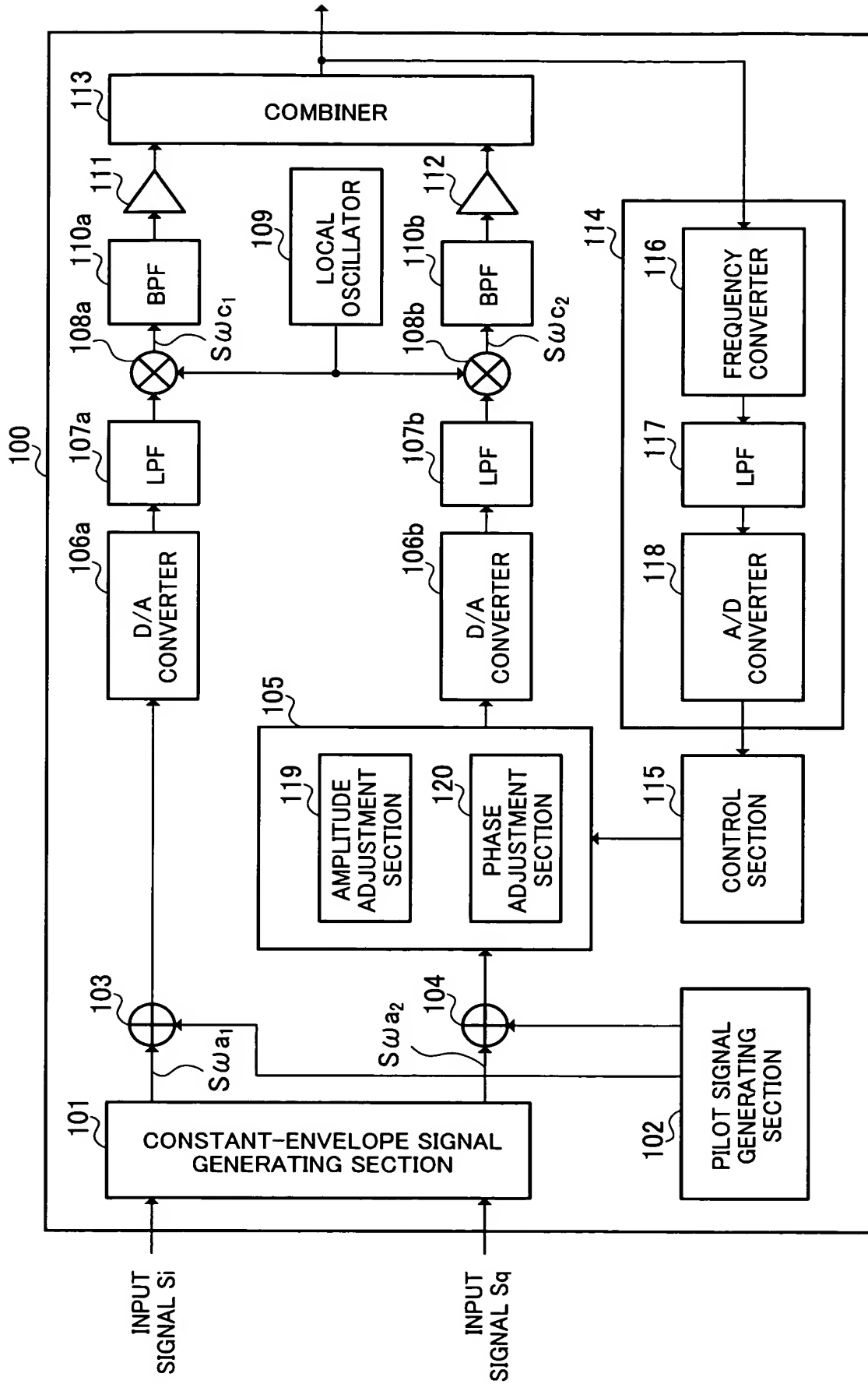


FIG.4

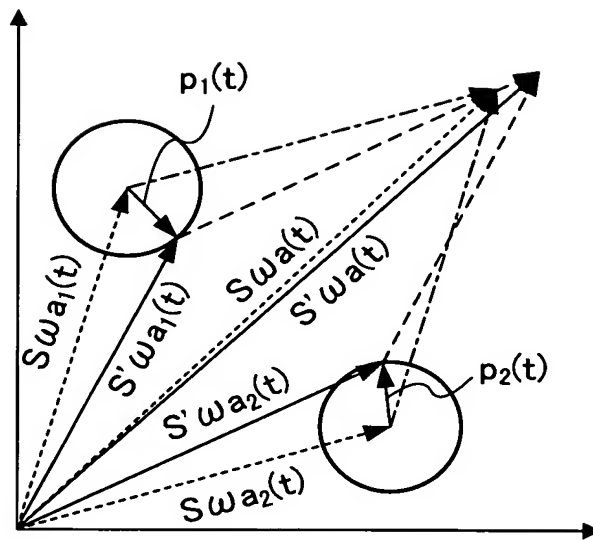


FIG.5



FIG.6A

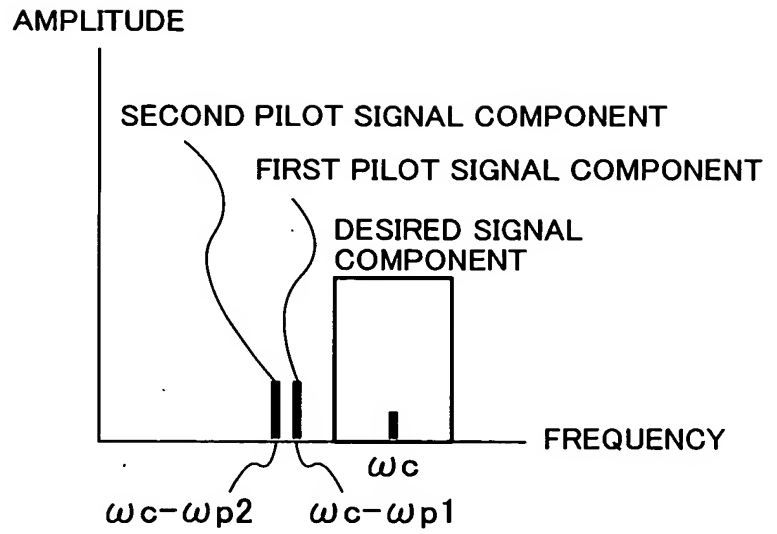


FIG.6B

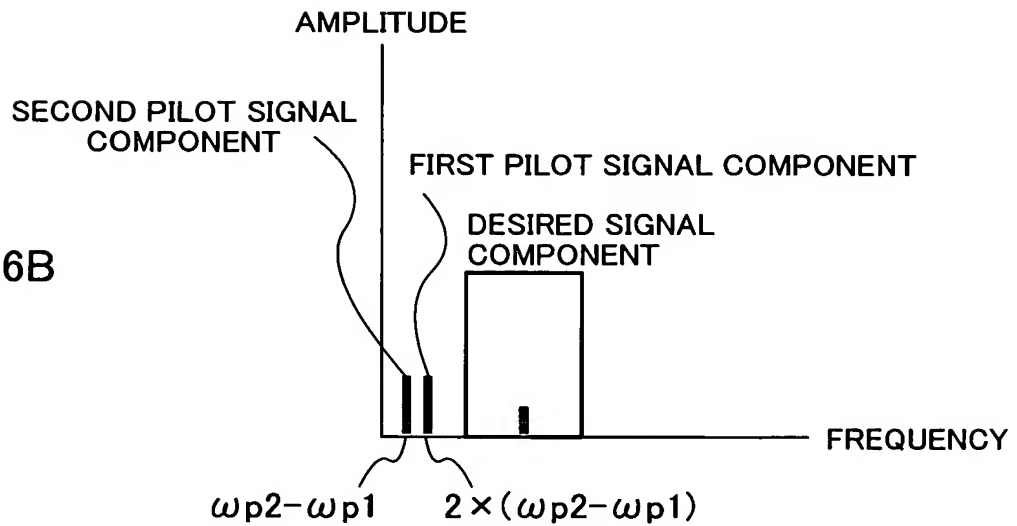
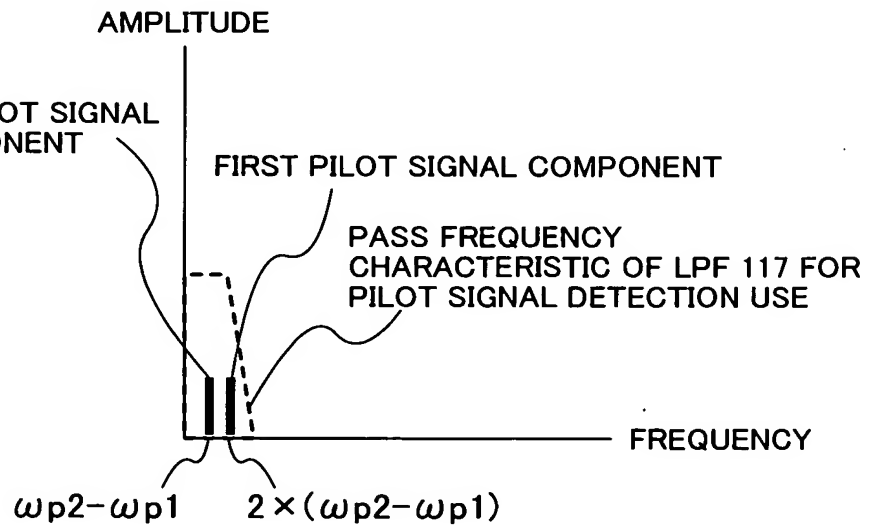


FIG.6C



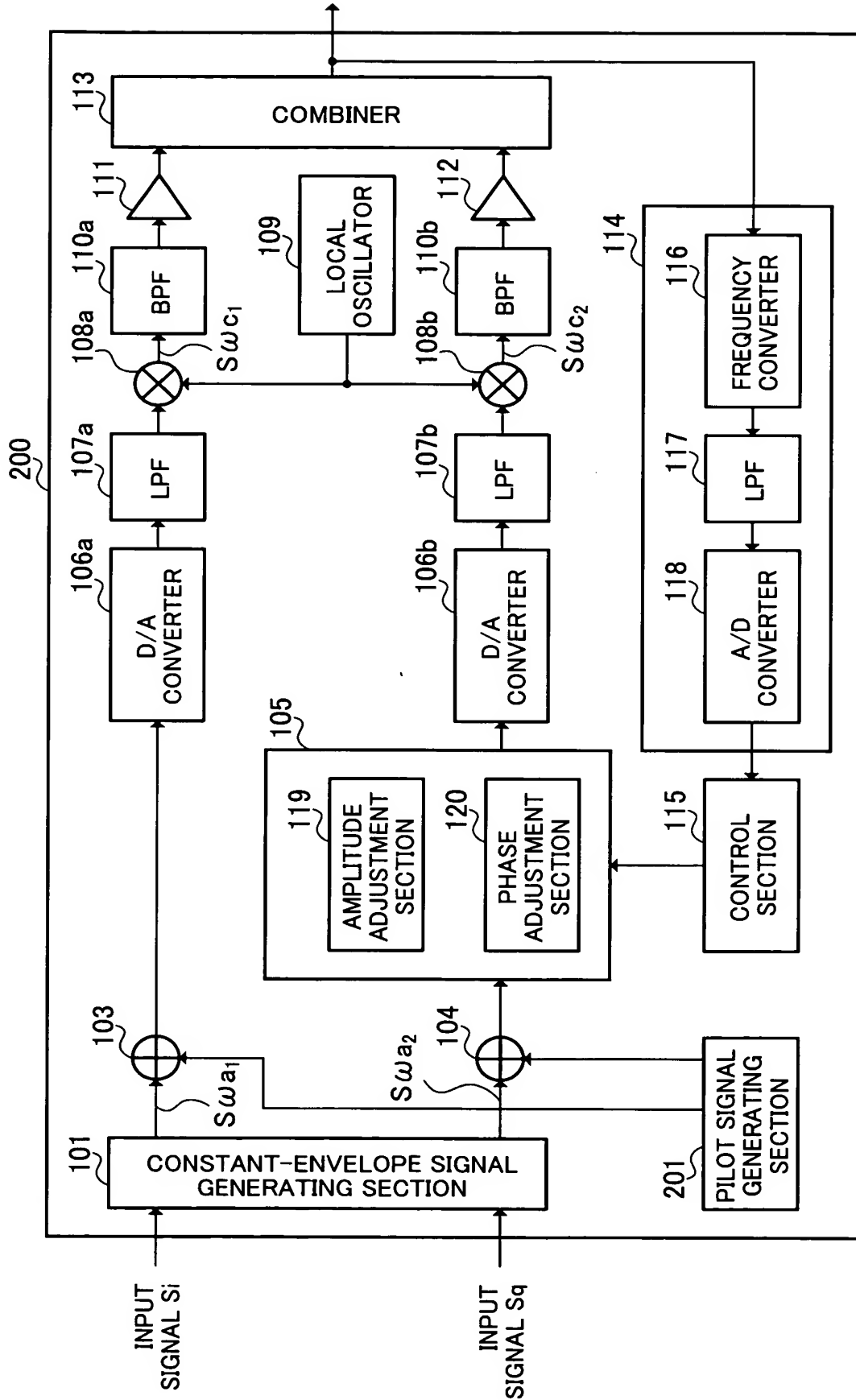


FIG.7

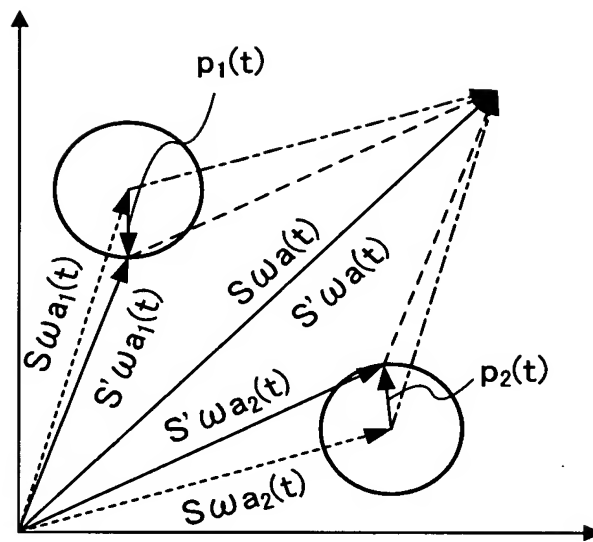


FIG.8

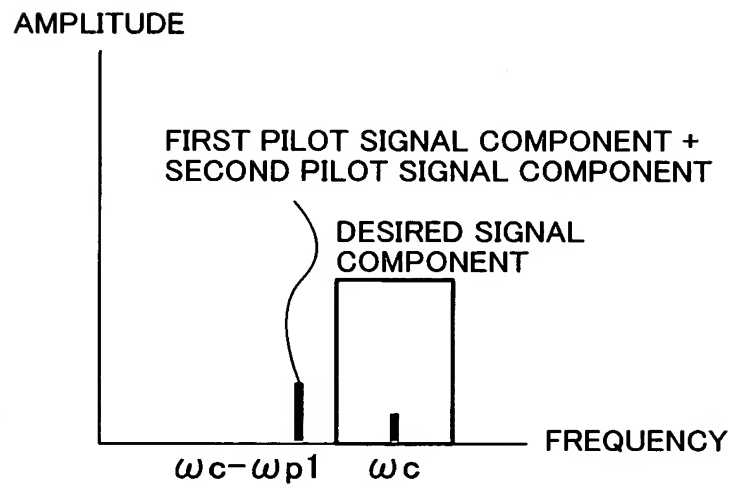


FIG.9

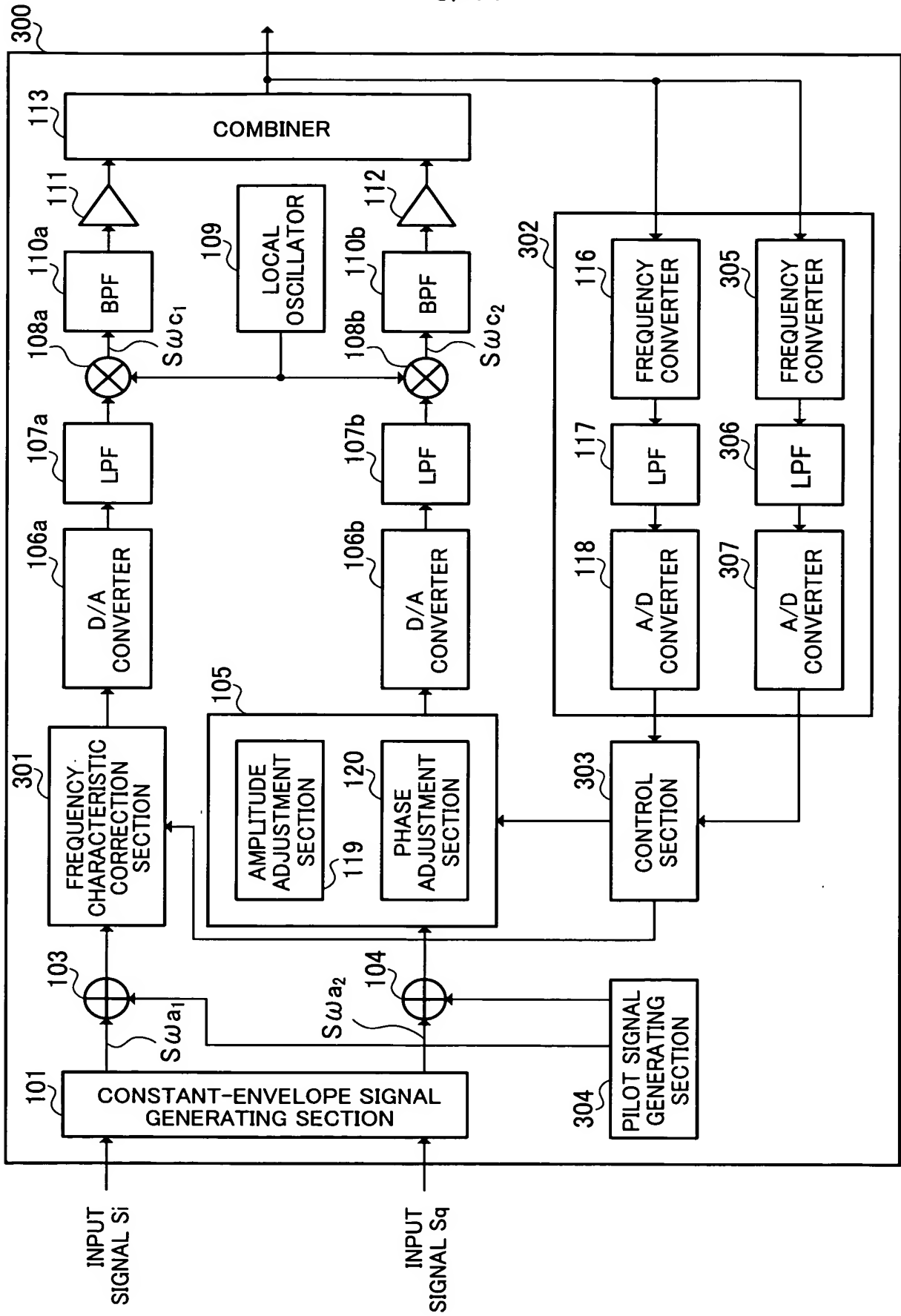


FIG.10

9/11

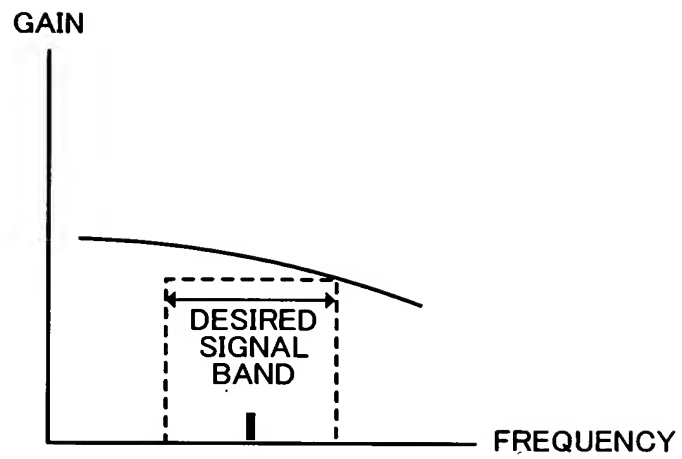


FIG.11

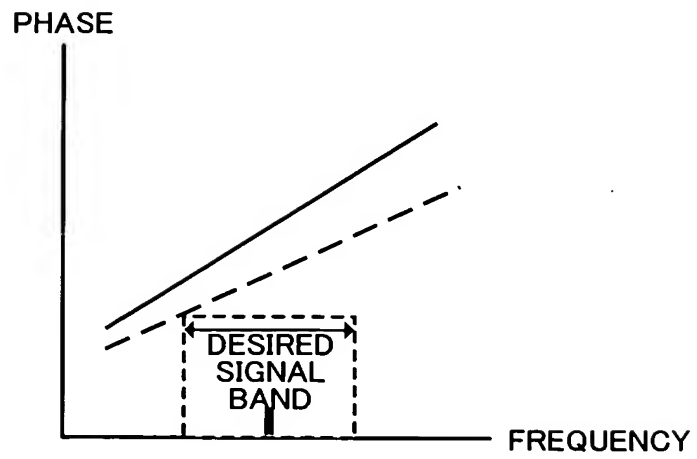


FIG.12

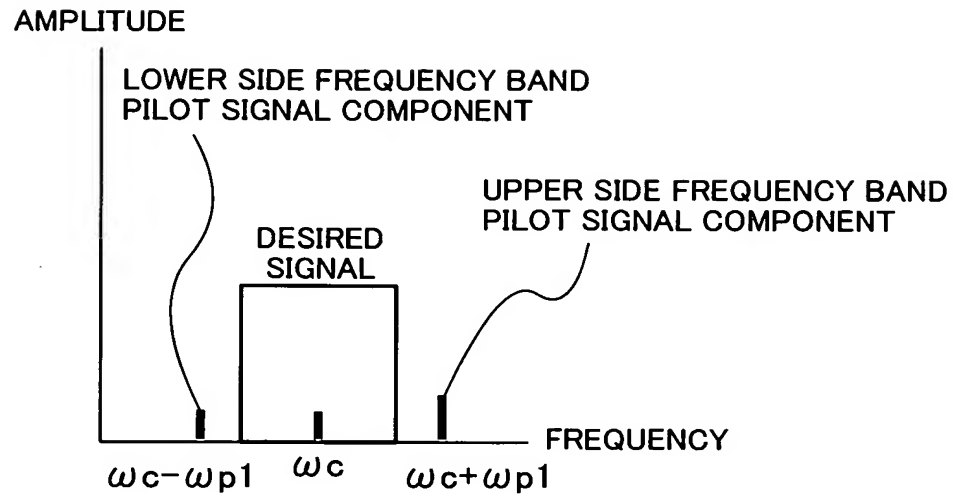


FIG. 13

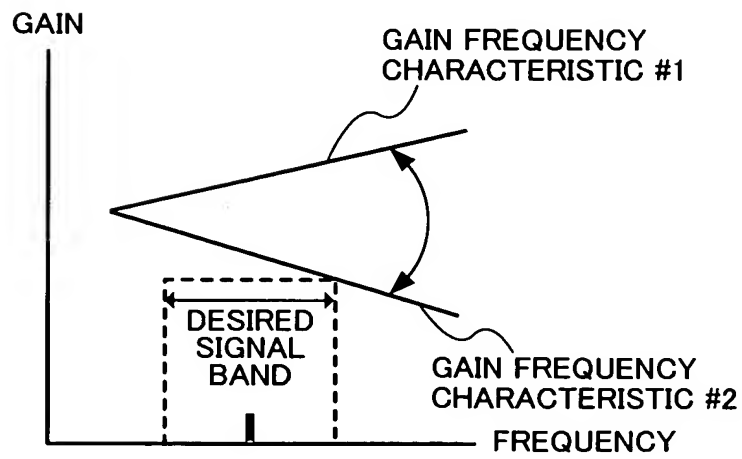


FIG. 14

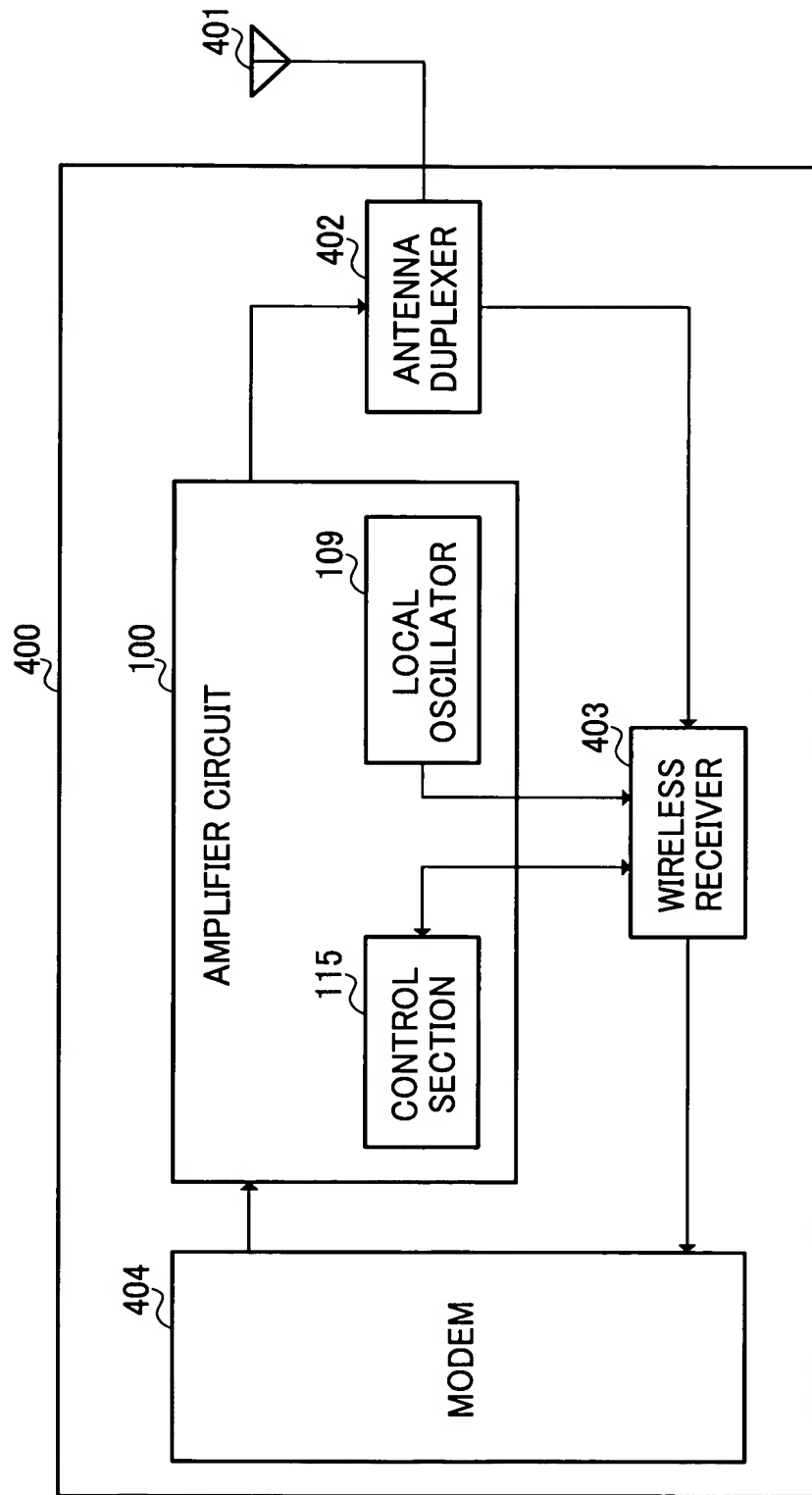


FIG.15